

and Algiers. After giving an account of the morbid appearances produced in the vines and a sketch of the development of the *Peronospora* and its mode of propagation, he states that the evil effects of the *Peronospora* are much greater in Algiers than in France. In the former country the fungus makes its appearance in May, causes the leaves to wither, and exposes the young grapes to the burning sun. The activity of the disease disappears in July. In the region of Bordeaux the mildew also appears early in the season and sometimes with such virulence that the conidial tufts appear not only on the leaves and young stems but also on the flowers and young berries, on which parts, as far as I know, the fungus has never been observed in this country. Prof. Prillieux, however, does not think that the harm done by the *Peronospora* is very great to the wine crop, for the danger is not so much from injury to the grapes as from injury to the nutrition of the vines by the premature fall of the leaves. Admitting that in exceptionally moist years serious trouble might arise, he thinks that in ordinary years the dry weather of midsummer would prevent marked injury from the growth of the *Peronospora*.

The use of lime having been proposed by Prof. Garovaglio, of Pavia, as a remedy, M. Prillieux experimented with powdered lime sprinkled on the leaves, but he found no beneficial effects. Even when the spots on the leaves where the *Peronospora* appeared were cauterized new conidial tufts appeared on the margin of the spots. Experiments with antiseptic fluids sprinkled on the leaves were without satisfactory results. As a practical measure it is advised to burn the leaves affected, because the oospores contained in them carry the disease over to the next season. Oospores have been found by Millardet and Prillieux in grape leaves in France, and the latter thinks that they occur abundantly. It is not improbable that they are abundant in this country, but owing to the density and hairiness of the leaves of most of the varieties of grape cultivated in this country it is almost impossible to detect their presence with the naked eye or a hand lens, and, as far as my own experience goes, examinations with the compound microscope show oospores only in a comparatively small number of leaves. A continued observation of the disease as it occurs in New England has failed to convince me that any perceptible injury is done to the vines in that region where the short and unusually dry summers are unfavorable to the full development of the *Peronospora*. Dr. Engelmann, however, states that the fungus produces injury in some of the Western States. In Algiers, where the conditions are very different from those of New England and favor the appearance of the fungus early in the season, the disease, as might be expected, is most disastrous.—W. G. FARLOW.

Chrysogonum Virginianum, var. *dentatum*.—I wish to direct the attention of botanists in the lower Middle and Southern States

to a striking variety of our *Chrysozonum*, which grows apparently intermixed with the ordinary form. The low and subcaulescent forms of the two appear to be nearly alike. But in the well developed and taller forms, rising to a foot in height, the difference is that this var. *dentatum* has the leaves strongly serrate (instead of crenate), all the upper ovate and acute, the base not cordate, the teeth callous-mucronate, and a very pronounced callous mucro makes a conspicuous point to the involueral bracts. It is found on High Island in the Potomac, Maryland, and was first received from Mr. J. Donnell Smith, who collected it in June, 1881. Specimens from the same locality collected in May and June, 1879 and 1880, by Mr. L. F. Ward and Dr. Vasey, communicated by them, exhibit these characteristics in a less degree, and show that we have to do with only a marked variety.—A. GRAY.

Some New Grasses.—*POA PULCHELLA*.—Culms cespitose, decumbent at the base, from a much branched rhizome, the base crowded with the short almost filiform leaves which are seldom more than 1 inch long, with somewhat broadened and thickened bases; culms slender, smooth, erect, 4 to 6 inches high, with 1 to 2 short leaves, the blade $\frac{1}{2}$ inch long or less, ligule 1 line long, membranaceous, obtuse; panicle 1 to $1\frac{1}{2}$ inches long, 1 inch wide, erect, the lower branches in pairs, spreading, smooth, capillary, each with a single spikelet; spikelets purplish, 3 to 4 lines long, large for the size of the plant, 3 to 5 flowered; lower glumes about 1 line long, 3 nerved, smooth, mostly obtuse or somewhat erosely dentate, broadly scarious margined; flowering glumes about 2 lines long, 3 nerved, lanceolate, the upper ones a little acutish, the lower obtuse with scarious apex, finely scarious on the keel and nerves, but not pubescent nor webbed at the base; lower palea about equaling the fl. glume strongly bidentate, and scarious on the conspicuous nerves.

A handsome dwarf *Poa*, related to *P. lava* but distinct, found by Mr. W. N. Saksdorf, on the Columbia river, from near the river bank to the summit of the hills (2,000 ft.).

POA BOLANDERII.—Culms 1 to $1\frac{1}{2}$ ft. high, erect or somewhat geniculate below, with 3-4 conspicuous rather short and broad leaves (2 to 3 inches by 2 lines); sheaths striate, smooth, loose, ligule membranaceous, obtuse; panicle 4 to 6 inches long, the rays $1\frac{1}{2}$ to 2 in., distant, mostly in pairs, frequently with 2 to 3 additional short ones, at first erect and appressed, becoming horizontal or reflexed, the longer ones 2-3 inches long, slender, mostly flowering near the extremities, the branchlets appressed and short pedicelled; rachis and rays smooth, spikelets 1 to 3 flowered, often only 1 flowered; outer glumes thin, green, scarious margined, the upper about 1 line long, lance-oblong, 3 nerved, frequently lacerate at the apex, the lower about one-third shorter and acuter; flowering glumes $1\frac{1}{2}$ lines long, rather faintly 5 nerved, lanceolate, acute